

## ISOSURFACE EXTRACTION INTO SPLAT HIERARCHY

### ABSTRACT

[0066] A method of extracting isosurface data from hierarchical node data, including providing hierarchical node data representing an object, the hierarchical node data including a lowest hierarchy level having a plurality of leaf nodes and a plurality of higher hierarchy levels each having a plurality of non-leaf nodes each encompassing ones of the plurality of leaf nodes. The method also includes determining a plurality of leaf node splats each corresponding to one of the plurality of leaf nodes that includes a portion of an isosurface, wherein each of the plurality of leaf node splats is based on scalar data corresponding to at least one of the plurality of leaf nodes. A plurality of non-leaf node splats each corresponding to one of the plurality of non-leaf nodes that includes a portion of the isosurface is also determined, wherein each of the plurality of non-leaf node splats is based on a plurality of splats each corresponding to a lower hierarchical node.